

REMARKS

The Office Action of December 31, 2001 presents the examination of claims 1, 2, 4-7, 9-14, 16-18 and 21-32. The present paper cancels claims 2, 7, 14, 22 and 29, without prejudice to or disclaimer of the subject matter thereof. New claims 33-41 are added herein.

The limitations in the new and amended claims as to the percentage sequence identity and hybridization conditions are found in the specification at, e.g. page 4, lines 17-22. SEQ ID NO: 1 constitutes a portion of SEQ ID NO: 3, and so the statements made there about percentage sequence identity and hybridization are taken to apply as well to SEQ ID NO: 3 as to SEQ ID NO: 1.

Prior art rejections

Claims 1, 2, 4, 6, 7, 13, 14, 26, 28 and 29 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Morioka et al. This rejection is respectfully traversed. Reconsideration and withdrawal thereof are requested.

The Examiner states that Applicants' previous amendment of claims 1, 6 and 13, to incorporate the limitations of claim 3, which had been indicated previously as allowable, was insufficient as the amendment was read as applying only to the first independent

species. This was said to leave the second species still anticipated by Morioka.

In a telephone interview with the Examiner on or about January 9, 2002, the language of amended claim 1 was discussed and the Examiner agreed that such language overcame the instant rejection, as it made clear that the length of the claimed polynucleotide applied to all instances recited in the claim. Accordingly, the instant rejection should be withdrawn.

Claims 1, 2, 4-7, 13, 14, 21, 22, 26, 28 and 29 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Morioka et al., in view of Ueki et al. (Plant Cell Physiology). Also, claims 1, 2, 4-7, 13, 14, 21, 22, 26, 28 and 29 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Morioka in view of Ueki et al (EP '770). These rejections are respectfully traversed. Reconsideration and withdrawal thereof are requested.

The Examiner indicates that the rejections are maintained because the previous amendment to claim 1 did not clearly apply to all species recited in the claim. Applicants submit that the present amendment obviates this basis for the rejection. Accordingly, the instant rejections should be withdrawn.

Rejections under 35 U.S.C. § 112, first paragraph

Claims 1, 2, 4-7, 9-14, 16-18 and 21-32 stand rejected under 35 U.S.C. § 112, first paragraph, as allegedly containing subject matter not sufficiently described in the specification. This rejection is respectfully traversed. Reconsideration and withdrawal thereof are requested.

In particular, the Examiner asserts that the language, "one or a plurality of nucleotides are substituted or deleted, or except that one or a plurality of nucleotides are inserted or added" is not supported by the specification. The Examiner indicates that there is not written description of a number of species representative of such a genus. In particular, the Examiner indicates at page 5 of the Office Action that, "The specification mentions only SEQ ID NO: 1, without any internal deletions, substitutions or additions."

The presently amended claims have been written in terms of sequence identity and hybridization to a reference sequence, in accord with language negotiated with the Examiner in the interview of January 9, 2002. Thus, the claims describe a structure or a physical property that sufficiently describes the genus of the claims.

Furthermore, as discussed in the interview of January 9, the specification provides description of variants of the instantly claimed nucleic acids. For instance, at page 7, lines 18-26, preparation of various fragments of SEQ ID NO: 3 is described. Table 1 shows the promoter activity of these different fragments. At page 9, lines 8-12, the relevant portion of a polynucleotide that confers promoter activity is described.

Thus, the specification in fact describes the structure-function relationships relevant to the present invention. Accordingly, the rejection of claims 1, 2, 4-7, 9-14, 16-18 and 21-32 stand rejected under 35 U.S.C. § 112, first paragraph, for lack of written description of the invention in the specification, should be withdrawn.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned at the telephone number below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

Applicants believe the present claims are in condition for allowance and respectfully request such favorable action.

Attached hereto is a marked-up version of the changes made to the application by this Amendment.

Pursuant to 37 C.F.R. §§ 1.17 and 1.136(a), Applicant(s) respectfully petition(s) for a three (3) month extension of time for filing a reply in connection with the present application, and the required fee of \$980.00 is attached hereto.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

By Mark J. Nuell  
Mark J. Nuell, #36,623

DRN/crt  
0760-0281P

P.O. Box 747  
Falls Church, VA 22040-0747  
(703) 205-8000

Attachment: Version with Markings to Show Changes Made

VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims:

Claims 2, 7, 14, 22 and 29 have been canceled.

The claims have been amended as follows:

1. (Twice Amended) An isolated nucleic acid fragment no more than 120 nucleotides in length and comprising the nucleotide sequence shown in SEQ ID NO: 1 or an isolated nucleic acid fragment ~~no more than 120 nucleotides in length, excluding the nucleic acid having the nucleotide sequence shown in SEQ ID NO: 3, comprising the [same] nucleotide sequence shown in SEQ ID NO: 1 except that one or a plurality of nucleotides are substituted or deleted, or except that one or a plurality of nucleotides are inserted or added, that hybridizes to a polynucleotide having a sequence that is the complement of SEQ ID NO: 3 under conditions equivalent to 5x Denhardt's solution, 6 x SSC, 0.5% to 0.1% SDS, at a temperature from 50 to 65 °C, and which has activity to promote expression of a structural gene located downstream of said nucleic acid fragment.~~

4. (Twice Amended) The nucleic acid fragment according to claim 1, which comprises the nucleotide sequence shown in comprising a polynucleotide having the sequence of SEQ ID NO: 1.

5. (Amended) A nucleic acid ~~fragment~~—comprising a plurality of nucleic ~~acids~~ ~~acid~~ ~~fragments~~ according to any one of claims 1-4, ~~which~~ claim 1 or 4 ~~that~~ are ligated.

6. (Amended) A recombinant vector comprising at least one nucleic acid ~~fragment~~—of claim 1 and a structural gene located downstream of said nucleic acid ~~fragment~~—whose expression is promoted by said nucleic acid ~~fragment~~.

9. (Twice Amended) The recombinant vector according to claim 6, wherein said nucleic acid ~~fragment~~—comprises the nucleotide sequence shown in ~~of~~ SEQ ID NO: 1.

10. (Twice Amended) The recombinant vector according to any one of claims 6, 7 or 9, wherein said nucleic acid ~~fragment~~—is inserted in an intron sequence located upstream of said structural gene.

13. (Twice Amended) A method for promoting expression of a structural gene, comprising inserting, at a location upstream of said structural gene, a nucleic acid ~~fragment~~—no more than 120 nucleotides in length comprising the nucleotide sequence shown in SEQ ID NO: 1 that hybridizes to a polynucleotide having a sequence that is the complement of SEQ ID NO: 3 under conditions equivalent

to 5x Denhardt's solution, 6 x SSC, 0.5% to 0.1% SDS, at a  
temperature from 50 to 65 °C, under a nucleic acid fragment no more  
than 120 nucleotides in length, excluding the nucleic acid having  
the nucleotide sequence shown in SEQ ID NO: 3, comprising the same  
nucleotide sequence as shown in SEQ ID NO: 1 except that one or a  
plurality of nucleotides are substituted or deleted, or except that  
one or a plurality of nucleotides are inserted or added, which has  
activity to promote expression of a structural gene located  
downstream of said nucleic acid fragment.

16. (Twice Amended) The method according to claim 13,  
wherein said nucleic acid ~~fragment~~ comprises a polynucleotide  
having the nucleotide sequence shown in SEQ ID NO: 1.

17. (Twice Amended) The method according to any one of  
claims claim 13, 14 or 16, wherein said nucleic acid ~~fragment~~ is  
inserted in an intron sequence located upstream of said structural  
gene.

21. (Amended) The method according to claim 13, in which a  
plurality of said nucleic acids ~~acid~~ fragments is inserted upstream  
of said structural gene.

23. (Amended) The method according to claim 16, in which a plurality of said nucleic acids ~~acid fragments~~ is inserted upstream of said structural gene.

24. (Amended) The method according to claim 17, in which a plurality of said nucleic acids ~~acid fragments~~ is inserted in said ~~intron~~ upstream of said structural gene.

25. (Amended) The method according to claim 18, in which a plurality of said nucleic acids ~~acid fragments~~ is inserted in said ~~intron~~ upstream of said structural gene.

26. (Amended) A plant, or progeny thereof, comprising the recombinant vector of claim 6.

27. (Amended) A plant, or progeny thereof, comprising at least one nucleic acid ~~fragment~~ of claim 1 inserted into an intron of a structural gene.

Claims 33-41 have been added.